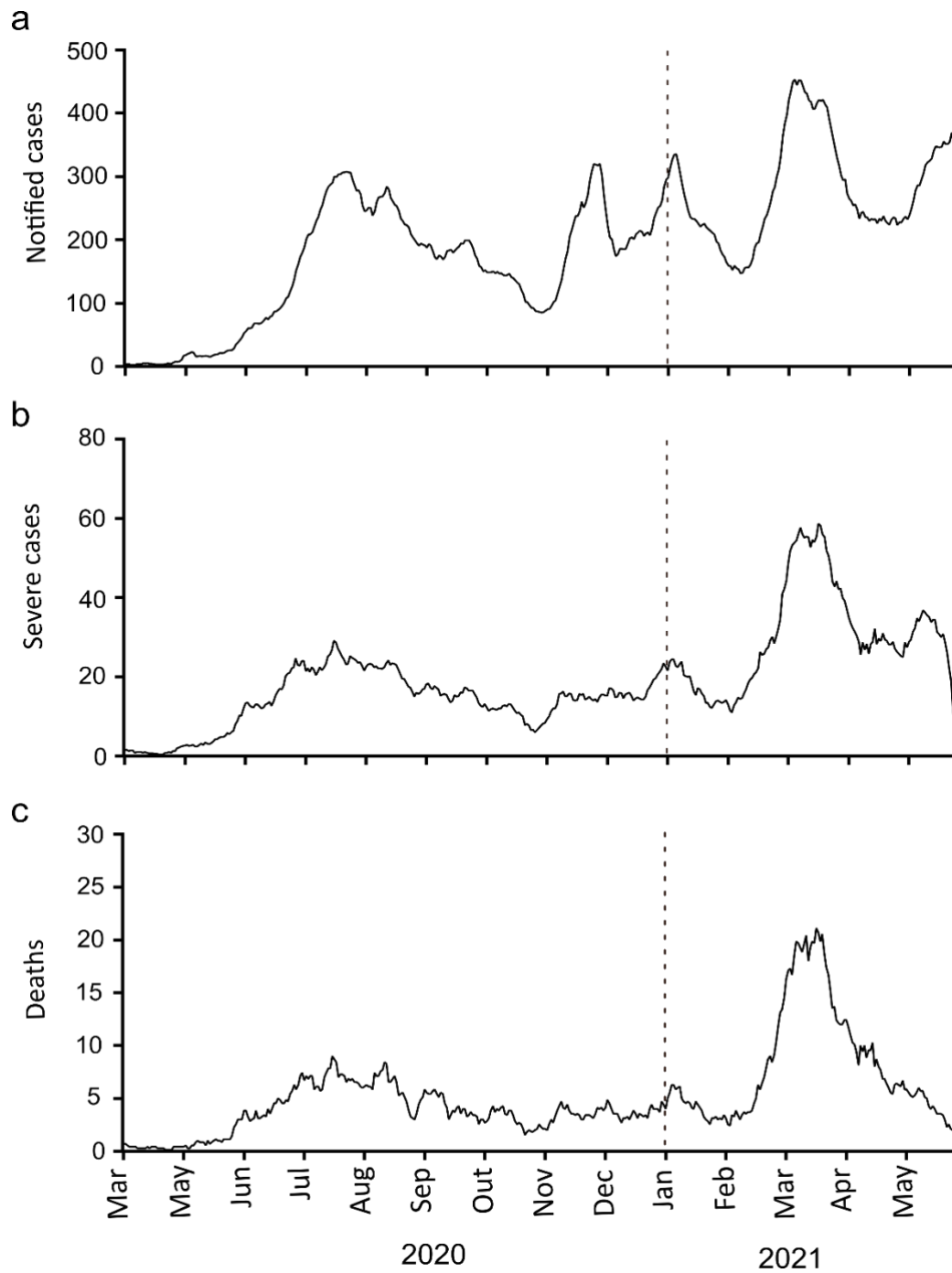


# **Impact of SARS-CoV-2 Gamma lineage introduction and COVID-19 vaccination on the epidemiological landscape of a Brazilian city**

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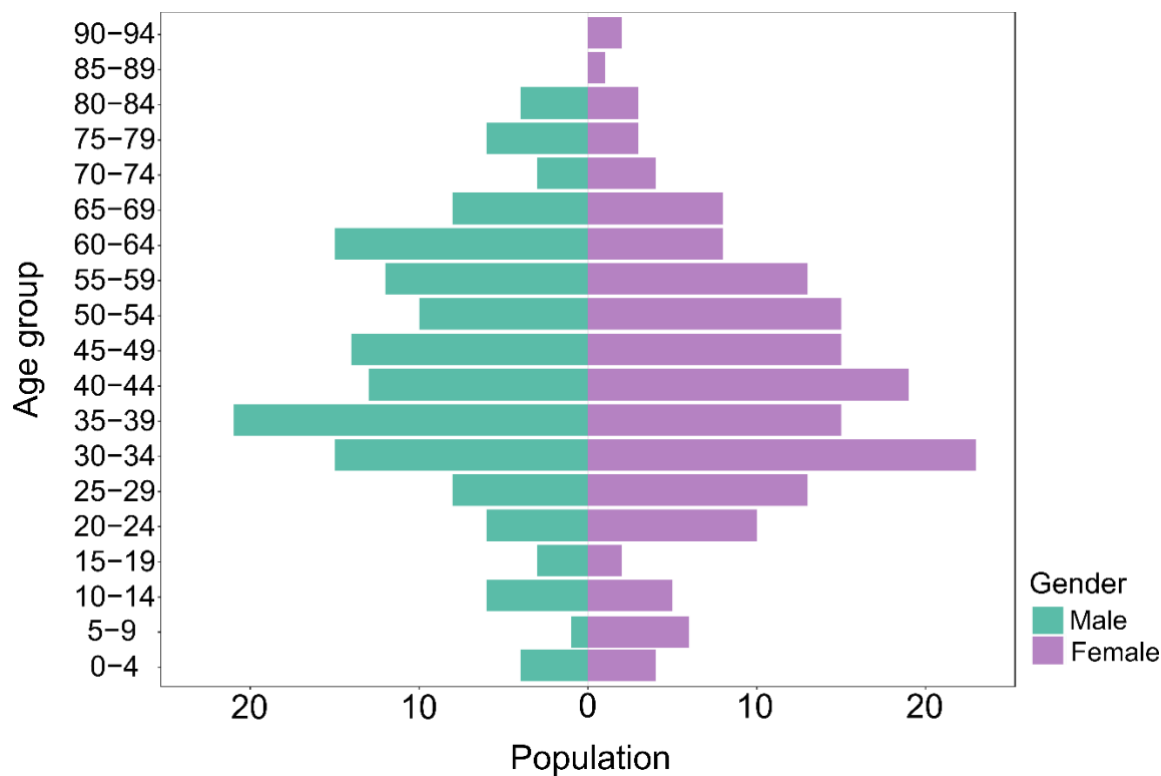
## Supplementary Information

**Supplementary Figure 1: Moving average of daily cases from March 2020 to May 2021.**



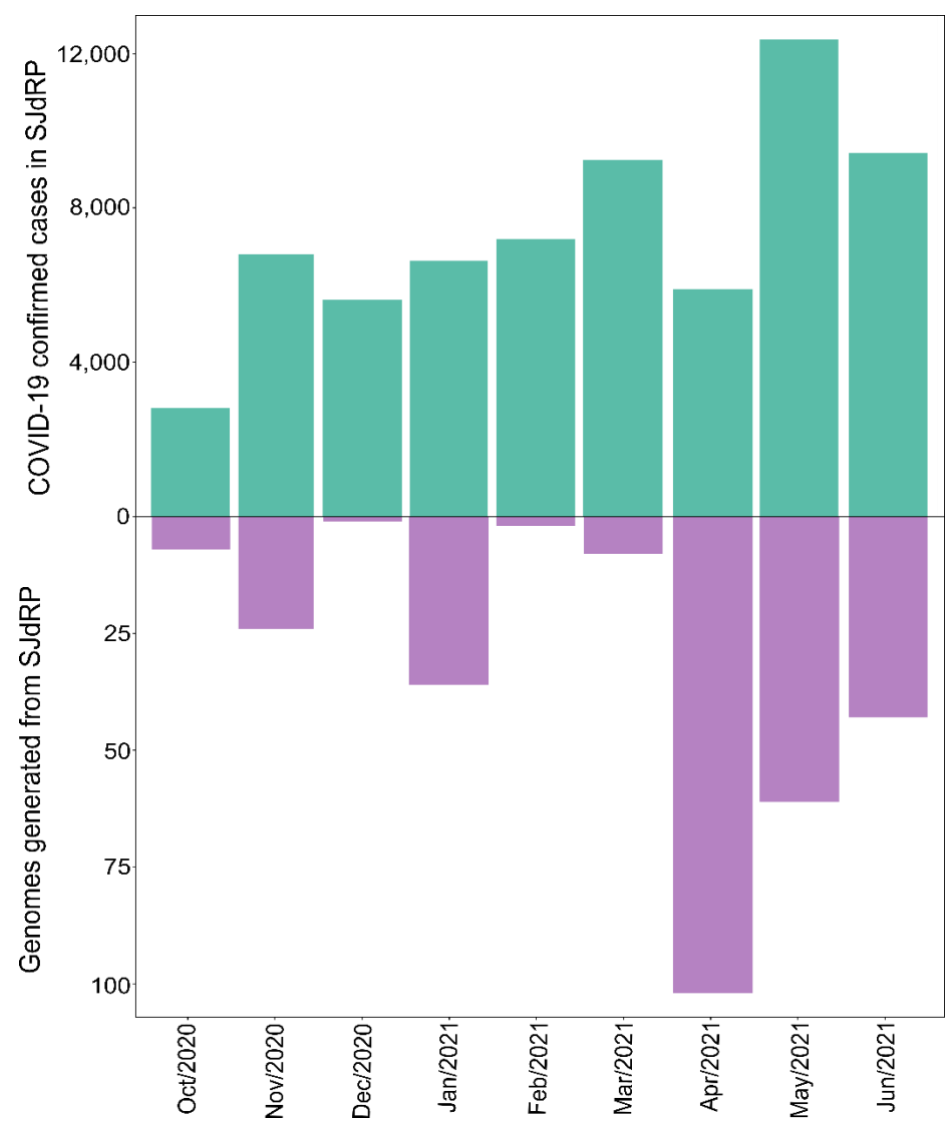
**a,** Moving average of total notified cases. **b,** Moving average of severe cases. **c,** Moving average of deaths in the Regional Health Department XV (RHD XV) of São José do Rio Preto.

**Supplementary Figure 2: Sociodemographic data of the studied population.**



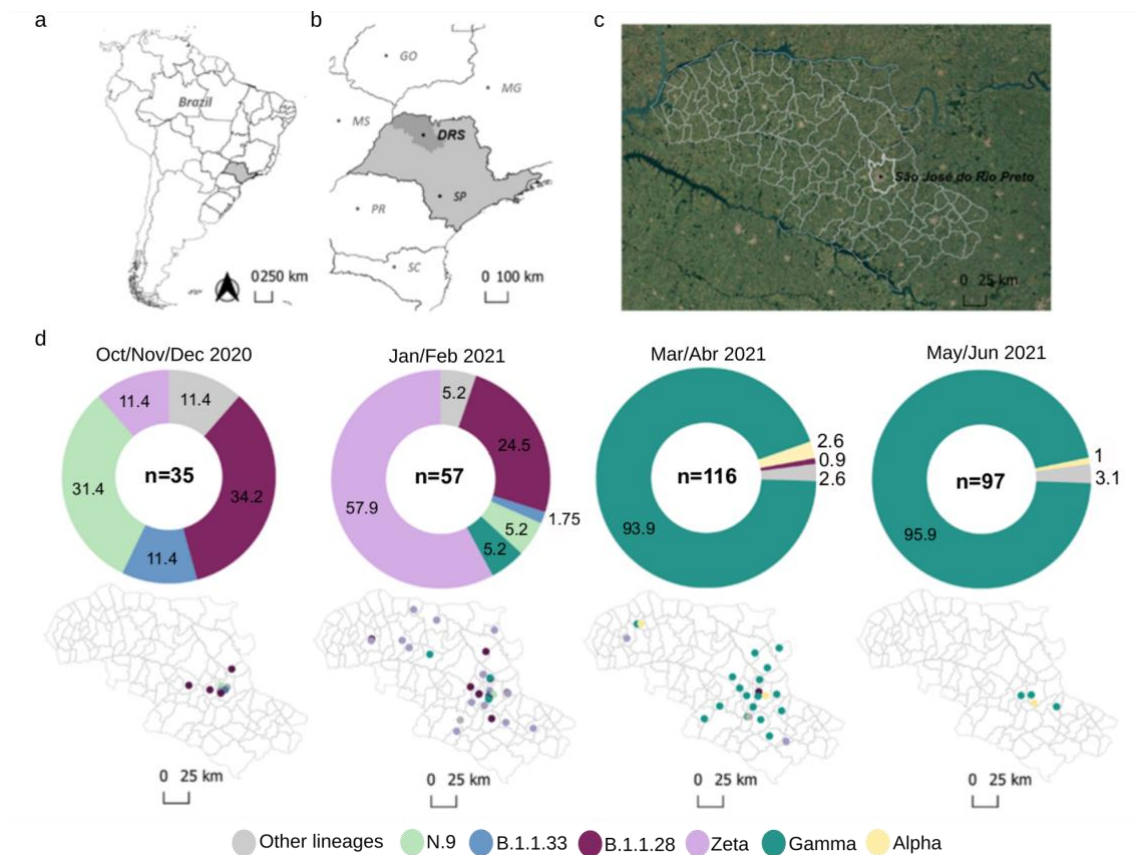
Sociodemographic data from 318 samples, from which SARS-CoV-2 complete genomes were generated. The samples were obtained from 169 female and 149 males patients, which presented an average age of 43 years old.

**Supplementary Figure 3: Genome sequencing coverage from October 2020 to June 2021.**



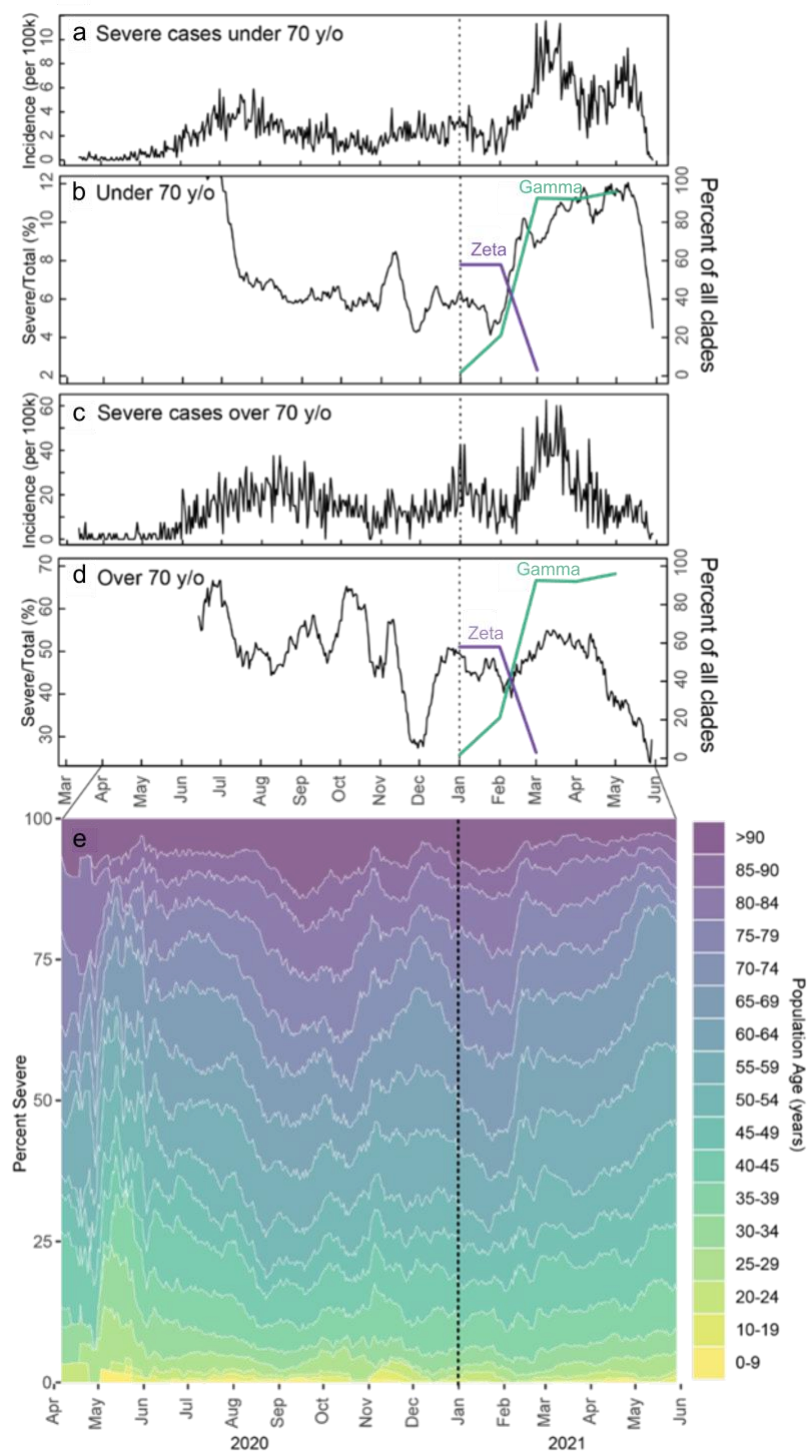
Number of confirmed cases for COVID-19 in SJdRP from October 2020 to June 2021 and the number of sequenced genomes for the period.

**Supplementary Figure 4: Geographic and temporal distribution of SARS-CoV-2 variants detected in the Regional Health Department (RHD XV) of São José do Rio Preto, from October 2020 to June 2021 by genomic surveillance.**



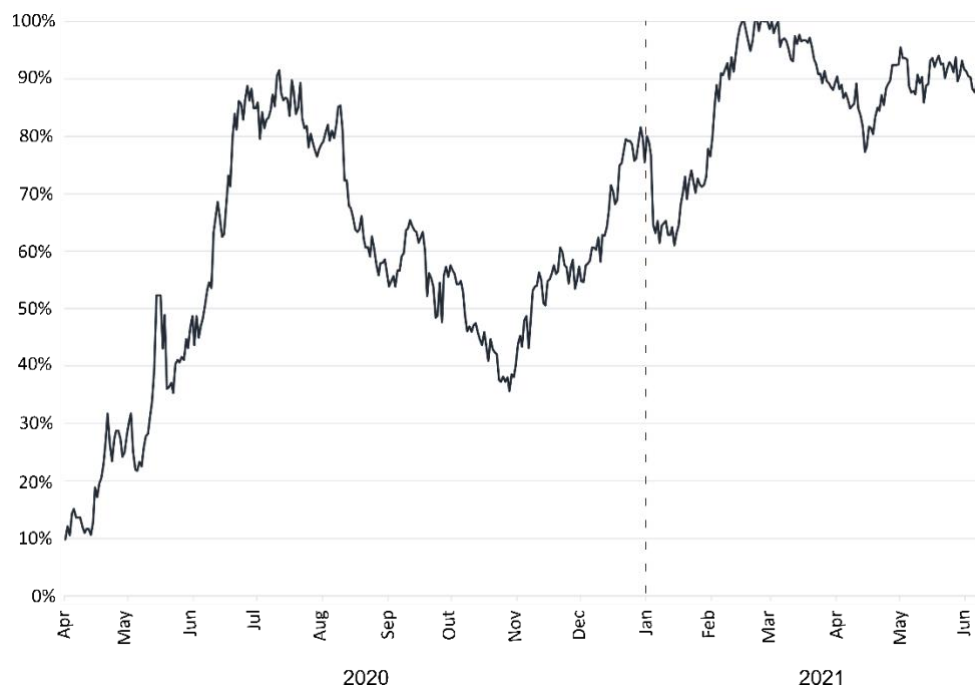
**a**, Geopolitical map of Brazil and São Paulo state highlighted in grey. **b**, Map of São Paulo state (in grey) indicating the Regional Health Department (RHD XV) of São José do Rio Preto (SJdRP), located in the Northwest region. **c**, Satellite image of RHD XV generated using the Google Maps Geocoder v.0.0.3 plugin implemented in QGIS software version 3.8.2 (<http://qgis.org>). **d**, Prevalence, and distribution of SARS-CoV-2 variants detected the RHD XV of SJdRP from October 2020 to June 2021 by genomic surveillance. The information about the detected SARS-CoV-2 variant's location and collection date was used to create the maps in QGIS software version 3.8.2 (<http://qgis.org>).

**Supplementary Figure 5: Increase of case severity associated with SARS-CoV-2 Gamma lineage introduction and spread in São José do Rio Preto.**



**a, b, c, d**, incidence of SARS-CoV-2 and the proportion of COVID-19 cases that are severe for those under 70 and over 70 years, respectively. **e**, age breakdown of severe cases by age and time.

**Supplementary Figure 6: Percentage of Intensive Care Unit (I.C.U.) beds occupied per month.**



Rate of Intensive Care Unit (I.C.U.) beds occupied by patients diagnosed with COVID-19 in São José do Rio Preto.